



Patent  
Attorney's Docket No. 029430-454

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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In re Patent Application of

Misako MIZUNO et al.

Application No.: 09/577,657

Filed: May 25, 2000

For: GENE ENCODING CAFFEINE  
SYNTHESIS SYSTEM  
ASSOCIATED ENZYME AND USE  
THEREOF

) Group Art Unit: 1638

) Examiner: Anne R. Kubelik

) Confirmation No.: 6902

**REPLY & AMENDMENT**

Sir:

In complete response to the Official Action mailed May 3, 2002, please amend the above-cited application as follows:

**IN THE CLAIMS**

Please cancel Claim 22.

Please amend Claims 1, 2, 4, 5, 7, 14, 17, 20, 21 and 23 as follows:

1. (Twice Amended) An isolated DNA molecule comprising either of the following nucleotide sequences:

(a) a nucleotide sequence encoding N-methyl transferase of SEQ ID NO:1 and having the N-methyl transferase enzyme activities of 7-methylxanthine N3 methyl transferase, theobromine N1 methyl transferase and paraxanthine N3 methyl transferase; or